

WHAT IS CLAIMED IS:

1. A crossmember device adapted to be installed between a pair of strut/shock towers of a vehicle, the device comprising:

a left brace and right brace each having an upper, intermediate and lower portion, said left and right brace interconnected in a X-configuration, wherein the center of the interconnection is between said intermediate and said lower portions of said left and right brace;

a planar body mounting flange for providing gusseting structure to interconnect said left and right brace; and

a strut/shock tower flange assembly swivel attached to each distal end of said upper portions of said left and right brace.

2. The device according to Claim 1, said body mounting flange having a main body portion and an X gusset mounting portion connected to said main body by a pair of connecting gusset portions.

3. The device according to Claim 2, wherein a void is formed between said pair of connecting gusset portions and between said main body and X gusset mounting portion.

4. The device according to Claim 3, said body mounting flange forming an upper gusset between said left and right intermediate portions, a lower gusset between said left and right lower portions, a left gusset between said left intermediate portion and said right lower portion, and a right gusset between said right intermediate portion and said left lower portion.

5. The device according to Claim 1, said strut/shock tower flange assembly comprising,

a circular flange having a plurality of mounting holes disposed therein, and

a pair of brackets spanning said circular flange, said pair of brackets oriented parallel to each other, and inclined at an angle toward one side of said circular flange, each of said brackets having an integrally formed elbow offset to one side of said bracket and projecting upwardly, each of said brackets having a mounting hole disposed within each elbow such that swivel attachment hardware may be installed therethrough.

6. The device according to Claim 1, further comprising an adjustable coupler installed on each of said left and right brace for adjusting the respective length of said left and right brace.

7. The device according to Claim 1, wherein said left and right brace comprise round tubing.

8. The device according to Claim 1, wherein an obtuse angle θ is formed between said intermediate portions of said left and right brace.

9. A crossmember device adapted to be installed between a pair of strut/shock towers of a vehicle, in combination with a vehicle having a pair of strut/shocks installed into a pair of strut/shock towers, the device comprising:

a left brace and right brace each having an upper, intermediate and lower portion, said left and right brace interconnected in a X configuration, wherein the center of the interconnection is between the said intermediate and said lower portions of said left and right brace;

a planar body mounting flange for providing gusseting structure to interconnect said left and right brace; and

a strut/shock tower flange assembly swivel attached to each distal end of said upper portions of said left and right brace.

10. The device in combination with said vehicle according to Claim 9, said body mounting flange having a main body portion and X gusset mounting portion, said X gusset mounting portion connected to said main body portion by a pair of connecting gusset portions.

11. The device in combination with said vehicle according to Claim 10, wherein a void is formed between said pair of connecting gusset portions and between said main body and X gusset connecting portions.

12. The device in combination with said vehicle according to Claim 11, said body mounting flange forming an upper gusset between said left and right intermediate portions, a lower gusset between said left and right lower portions, a left gusset between said left intermediate portion and said right lower portion, and a right gusset between said right intermediate portion and said left lower portion.

13. The device in combination with said vehicle according to Claim 9, said strut/shock tower flange assembly comprising,

a circular flange having a plurality of mounting holes disposed therein, and

a pair of brackets spanning said circular flange, said pair of brackets oriented parallel to each other, and inclined at an angle toward one side of said circular flange, each of said brackets having an integrally formed elbow offset to one side of said bracket and of upwardly projecting, each of said brackets having a mounting hole disposed within each elbow such that swivel attachment hardware may be installed therethrough.

14. The device in combination with said vehicle according to Claim 9, further comprising an adjustable coupler installed on said left and right brace for adjusting the length of said left and right brace.

15. The device in combination with said vehicle according to Claim 9, wherein said pair of strut/shock towers are located in the rear of said vehicle.

16. The device in combination with said vehicle according to Claim 15, said crossmember device mounted to an upper portion of said pair of strut/shock towers and to said lower body of said vehicle.

17. The device in combination with said vehicle according to Claim 16, said crossmember device transversely oriented between said pair of strut/shock towers, and generally vertically oriented with respect to one of a trunk floor or lower body floor of said vehicle.

18. The device in combination with said vehicle according to Claim 16, said crossmember device transversely oriented between said pair of strut/shock towers, and generally vertically inclined with respect to one of a trunk floor or lower body floor of said vehicle.

19. The device in combination with said vehicle according to Claim 16, wherein said main body of said mounting flange is conformally attached to a portion of said lower body of said vehicle.

20. The device in combination with the vehicle according to Claim 9, wherein said left and right braces comprise round tubing.

21. The device in combination with said vehicle according to Claim 9, wherein an obtuse angle θ is formed between said intermediate portions of said left and right brace.

22. The device in combination with said vehicle according to Claim 9, wherein no modifications are required on said vehicle to install said crossmember device.

23. The device in combination with said vehicle according to Claim 16, wherein said crossmember device is positioned contiguously and laterally next to a backside of a rear seat of said vehicle such that trunk spaced remains unobstructed.

24. The device in combination with said vehicle according to Claim 9, wherein stiffness of the vehicle chassis is increased, and as a result, the handling of said vehicle is improved.

25. The device in combination with said vehicle according to Claim 9, wherein said crossmember device is positioned contiguously and laterally next to a cabin-to-trunk body bulkhead of said vehicle.